

USGS-NPS Vegetation Mapping Program
Sunset Crater Volcano National Monument

Populus tremuloides / Cinder Woodland (Local Assemblage)

COMMON NAME Quaking Aspen / Cinder Woodland

CLASSIFICATION CONFIDENCE LEVEL Not Rated, Unique to Monument

USFS WETLAND SYSTEM Upland

RANGE

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Quaking Aspen / Cinder Woodland is rare within Sunset Crater Volcano NM and in the environs. This association occurs in flat areas as well as on steep cinder slopes. It is found along the edge of the park roadside in the western section of Sunset Crater Volcano NM. It was also found on an unnamed cinder cone east of HWY 89. Only one relevé was sampled of this association and it occurred on the eastern slope of O'Leary Peak.

ENVIRONMENTAL DESCRIPTION

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The one relevé that was sampled occurred at an elevation of 2,180m. This association can occur on steep slopes and flat areas. The slope of the sampled relevé was steep (68%). It is found on cinder sand and gravel.

MOST ABUNDANT SPECIES

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<u>Stratum</u>	<u>Species</u>
Tree canopy	<i>Populus tremuloides</i>

ASSOCIATED SPECIES

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Holodiscus dumosus, *Juniperus osteosperma*, *Pinus ponderosa*

VEGETATION DESCRIPTION

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Only one relevé was sampled; it had a total vegetation cover of 35% with 29% absolute cover in the tree layer, 6% in the shrub layer, and 4% in the herbaceous layer. Twenty-three species occurred in the relevé.

The tree layer was characterized by *Populus tremuloides* (22% cover). The DBH ranged from 12-71cm (average 22cm). The shrub layer and the herbaceous layer were sparse.

MAP CLASSES

Quaking Aspen / Cinder Woodland was mapped as an inclusion in the surrounding vegetation classes due to mainly occurring in patches less than 0.5 hectares (minimum mapping unit) and being indistinguishable from the surrounding vegetation. However, a separate coverage (sucr_aspen) was developed to illustrate the few patches of this association.

COMMENTS

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Populus tremuloides is a clonal species that grows in the cinder soils and the lava beds within Sunset Crater Volcano NM and in the environs. This species is of particular interest to park staff due to it typically occurring only in mountainous areas (McDougall 1973).

This monument-specific community must be further sampled on the Colorado Plateau to determine if it is unique to Sunset Crater Volcano NM or if it is found across the landscape. Currently it has no global information, conservation rank or database code. Observations and descriptions of additional occurrences are required to confirm it as an association within the NVCS.

REFERENCES

McDougall 1973